



# IS1300 Embedded Systems 7.5 credits

Inbyggda system

This is a translation of the Swedish, legally binding, course syllabus.

## Establishment

Course syllabus for IS1300 valid from Spring 2011

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

**Completed upper secondary education including documented proficiency in Swedish corresponding to Swedish B and English corresponding to English A. For students who received/will receive their final school grades after 31 December 2009, there is an additional entry requirement for mathematics as follows: documented proficiency in mathematics corresponding to Mathematics A. And the specific requirements of mathematics, physics and chemistry corresponding to Mathematics D, Physics B and Chemistry A.**

# Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

Basic course in embedded systems.

The student will get knowledge about important concepts and knowledge and skills about methods in this area and be able to limit requirements to specify an embedded system.

This means the student after finishing the course will:

- have knowledge of important concepts in programming environment, operating systems and processor types,
- have knowledge of important concepts in real time applications,
- be able to analyse demands on embedded systems
- be able to make a prototype of an embedded system and test the systems software,
- be able to assess a design and to do a technical documentation

## Course contents

Labs to be familiar with software and hardware. Computer based tools is used in the course. Examples of processor types and operating systems. Examples of interface and communication. Programming tools, programming language and programming. System tools and system design. Consequences of real time problems.

## Examination

- TEN1 - Written exam, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 4.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.